

Comparisons of Job Characteristics

Focus Occupation: Health and Safety Engineers, Except Mining Safety Engineers and Inspectors (17-2111)

Associated Occupation: Engineering Technicians, Except Drafters, All Other (17-3029)

Compare Knowledge

Compare Skills

Compare Abilities

Compare Detailed Work Activities

Compare Tools and Technologies

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 79

Focus Occupation: Health and Safety Engineers, Except Mining Safety Engineers and Inspectors (17-2111)

Associated Occupation: Engineering Technicians, Except Drafters, All Other (17-3029)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Engineering and Technology	5.7	17.6	18.9	0 Current knowledge level may be sufficient
Mathematics	9.2	16.6	15.1	0 Current knowledge level may be sufficient
Mechanical	6.8	16.6	12.8	<< Extensive education and/or training may be required
Computers and Electronics	8.4	16.2	10.8	<< Extensive education and/or training may be required
Design	5.2	15.1	15.9	0 Current knowledge level may be sufficient
Production and Processing	6.0	13.3	8.6	<< Extensive education and/or training may be required
Physics	4.3	12.9	14.1	0 Current knowledge level may be sufficient
Telecommunications	3.9	7.4	4.5	<< Extensive education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 45

Focus Occupation: Health and Safety Engineers, Except Mining Safety Engineers and Inspectors (17-2111)

Associated Occupation: Engineering Technicians, Except Drafters, All Other (17-3029)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Operation Monitoring	6.6	12.1	7.9	<< Extensive development of skills in this area may be required
Quality Control Analysis	5.9	11.5	9.7	< A higher skill level may be required
Mathematics	6.2	10.8	8.6	< A higher skill level may be required

Troubleshooting	4.5	10.6	7.3	<<	Extensive development of skills in this area may be required
Equipment Maintenance	3.5	10.4	1.1	<<	Extensive development of skills in this area may be required
Equipment Selection	3.3	9.4	2.6	<<	Extensive development of skills in this area may be required
Repairing	3.4	9.4	1.2	<<	Extensive development of skills in this area may be required
Technology Design	2.6	7.0	5.8	<	A higher skill level may be required
Installation	1.7	6.2	2.2	<<	Extensive development of skills in this area may be required
Programming	2.2	4.9	3.5	<<	Extensive development of skills in this area may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 90			
Focus Occupation: Health and Safety Engineers, Except Mining Safety Engineers and Inspectors (17-2111) Associated Occupation: Engineering Technicians, Except Drafters, All Other (17-3029)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Visualization	7.5	12.3	10.2	<	Some improvement in abilities may be required
Information Ordering	9.9	12.0	11.9	0	Current ability level may be sufficient
Mathematical Reasoning	6.3	11.2	8.7	<	Some improvement in abilities may be required
Flexibility of Closure	7.8	10.5	10.9	0	Current ability level may be sufficient
Perceptual Speed	7.4	10.3	9.4	0	Current ability level may be sufficient
Number Facility	6.3	10.2	7.5	<<	Extensive improvement in abilities may be required
Visual Color Discrimination	6.4	9.6	8.2	<	Some improvement in abilities may be required
Memorization	5.6	7.5	6.6	<	Some improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

There are no common work activities.

Tools and Technologies that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 76	
Focus Occupation: Health and Safety Engineers, Except Mining Safety Engineers and Inspectors (17-2111) Associated Occupation: Engineering Technicians, Except Drafters, All Other (17-3029)			
Tools and Technologies		Exclusivity	
Business function specific software		1	

Chemical evaluation instruments and supplies	10
Computer data input devices	2
Computers	1
Content authoring and editing software	1
Content management software	6
Data management and query software	1
Development software	4
Diodes	80
Electrical measuring and testing equipment	7
Electrochemical measuring instruments and accessories	9
Electronic and communication measuring and testing instruments	14
Fluid mechanics equipment	11
Gas analyzers and monitors	10
Indicating and recording instruments	2
Industry specific software	1
Information exchange software	1
Laboratory enclosures and accessories	17
Laboratory furnaces and accessories	26
Laboratory heating and drying equipment	13
Laboratory ovens and accessories	15
Length and thickness and distance measuring instruments	2
Light and wave generating and measuring equipment	4
Liquid and gas flow measuring and observing instruments	15
Liquid and solid and elemental analyzers	19
Mechanical instruments	14
Metals and metallurgy and structural materials testing instruments	15
Non destructive examination equipment	13
Operating environment software	12
Power conditioning equipment	33
Pressure measuring and control instruments	10
Sound generating and measuring equipment	19
Spectroscopic equipment	10
Temperature and heat measuring instruments	6
Transducers	23

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.